NBSIR 87-3604

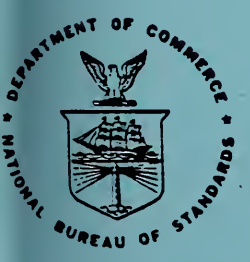


# Hazard I.
# Volume 3: Data Base Listing

R. W. Bukowski and E. Braun

U.S. DEPARTMENT OF COMMERCE
National Bureau of Standards
National Engineering Laboratory
Center for Fire Research
Gaithersburg, MD 20899

July 1987

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**NATIONAL BUREAU OF STANDARDS, Ernest Ambler, *Director***

# DATA BASE LISTING

The data provided in this volume represents a complete listing of all data in the HAZARD I data base discussed in section 6.3 of Volume 1. This listing is provided for use by those who cannot use the FIREDATA program which requires Dbase III+ (a proprietary data base management software package). This listing was produced with the DUMP utility provided in the FIREDATA program package, and can be updated in the same manner as users add to the data base themselves.

The listing is in four sections:

- Thermophysical Data (of common structural materials)
- Decomposition Data from the Cone Calorimeter
- Decomposition Data from the Furniture Calorimeter
- Toxicity Data

which correspond to the four data base files. Pages are printed only on one side so that individual pages can be replaced as needed. The reader is referred to the discussion in Volume 1 for details on the data sources and limitations.

NOTE: A zero (e.g., 0.0, 0.000) is automatically entered into any location where no data input is provided. Thus, the user should understand that a given value may not be zero, but rather there was no data to input. This is particularly obvious in the cone and furniture calorimeter data where smoke measurements were only recently implemented. The zeros here do not mean that no smoke was produced, but that no data was taken.

# SECTION 1 - THERMOPHYSICAL DATA

Thermophysical Data

Material Code: RD0001
Material ID: RED OAK

Form: Volume Density: 640.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.000150 | 1.3000 | 0.900 |
| 100.0 | 0.000190 | 1.8200 | 0.900 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

Thermophysical Data

Material Code: FBD001
Material ID: FIBER INSULATING BOARD;WOOD/VEGETABLE

Form: Volume Density: 240.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.000050 | 1.2500 | 0.900 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

Thermophysical Data

Material Code: CNC001
Material ID: CONCRETE,NORMAL WEIGHT,TYPE I CEMENT,DOLOMITE AGGR

Form: Volume Density: 2200.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.001750 | 1.0000 | 0.940 |
| 100.0 | 0.001700 | 1.2000 | 0.940 |
| 200.0 | 0.001380 | 1.2000 | 0.940 |
| 500.0 | 0.000900 | 1.5000 | 0.940 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

Thermophysical Data

Material Code: GBD001
Material ID: GYPSUM BOARD (PLASTERBOARD)

Form: Volume Density: 800.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.000160 | 0.9000 | 0.900 |
| 100.0 | 0.000130 | 0.9000 | 0.900 |
| 200.0 | 0.000130 | 0.8000 | 0.900 |
| 500.0 | 0.000170 | 0.9000 | 0.900 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

Thermophysical Data

Material Code: DFR001
Material ID: DOUGLAS FIR 32PCF 0%MOISTURE

Form: Volume Density: 510.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.000130 | 1.3000 | 0.900 |
| 100.0 | 0.000170 | 1.6000 | 0.900 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

Thermophysical Data

Material Code: PIN001
Material ID: PINE WOOD (SOUTHERN,SUGAR,WHITE) 10%MOISTURE

Form: Volume Density: 440.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.000120 | 1.5000 | 0.900 |
| 100.0 | 0.000150 | 2.1000 | 0.900 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

Thermophysical Data

Material Code: DFR002
Material ID: DOUGLAS FIR 32PCF 30%MOISTURE

Form: Volume Density: 660.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.000190 | 2.1000 | 0.900 |
| 100.0 | 0.000240 | 2.9000 | 0.900 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

Thermophysical Data

Material Code: WCH001
Material ID: WOOD,CHARRED,DRY

Form: Volume Density: 250.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.000070 | 1.0000 | 0.980 |
| 100.0 | 0.000090 | 1.4000 | 0.980 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

Thermophysical Data

Material Code: DFP001
Material ID: DOUGLAS FIR PLYWOOD 10%MOISTURE

Form: Volume Density: 560.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.000150 | 1.5000 | 0.900 |
| 100.0 | 0.000190 | 2.1000 | 0.900 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

Thermophysical Data

Material Code: GLS001
Material ID: GLASS,PLATE,SODA LIME

Form: Volume Density: 2500.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.001400 | 0.7600 | 0.950 |
| 100.0 | 0.001500 | 0.8800 | 0.000 |
| 200.0 | 0.001600 | 0.9900 | 0.000 |
| 500.0 | 0.001900 | 1.1300 | 0.000 |
| 800.0 | 0.002600 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

Thermophysical Data

Material Code: GFI001
Material ID: GLASS FIBER INSULATION 2PCF

Form: Volume Density: 32.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.000036 | 0.7200 | 0.900 |
| 100.0 | 0.000090 | 0.8600 | 0.000 |
| 200.0 | 0.000090 | 0.9900 | 0.000 |
| 500.0 | 0.000200 | 1.1700 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |
| 0.0 | 0.000000 | 0.0000 | 0.000 |

# SECTION 2 - DECOMPOSITION DATA FROM THE CONE CALORIMETER

Thermophysical Data

Material Code: BRK001
Material ID: CLAY BRICK,COMMON

Form: SOLID  Volume Density: 1900.00 kg/m3
Areal Density: 0.000 kg/m2

| Temperature (C) | Conductivity (kW/(m·K)) | Specific Heat (kJ/(kg·K)) | Emissivity |
|---|---|---|---|
| 20.0 | 0.000720 | 0.7500 | 0.930 |
| 100.0 | 0.000750 | 0.8000 | 0.000 |
| 200.0 | 0.000800 | 0.9000 | 0.000 |
| 500.0 | 0.000850 | 1.2000 | 0.000 |
| 800.0 | 0.000900 | 1.5000 | 0.000 |
| 1000.0 | 0.000000 | 0.0000 | 0.500 |

Decomposition Data from Cone Calorimeter

Material Code: RD0002
Material ID: RED OAK,7/8 IN.THICK (1468)
Form: BOARD
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): V Ignition Mode(P/N): P Incident Energy: 100.00 kW/m2
Initial Mass: 162.300 g Final Mass: 27.300 g
Ignition Time: 9.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 14980.0 |
| CO Yield | kg/kg | 0.0008 |
| CO2 Yield | kg/kg | 0.0048 |
| HC Yield | kg/kg | 0.0011 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.6403 |
| SOOT Yield | kg/kg | 0.0054 |
| Extinction Area | m2/kg | 32.970 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 10.0 | 150.00 | 0.000230 | 0.000 | 0.232 | 0.000 | 0.000 |
| 20.0 | 375.00 | 0.000220 | 0.000 | 0.113 | 0.000 | 0.000 |
| 30.0 | 348.00 | 0.000200 | 0.001 | 0.000 | 0.000 | 0.000 |
| 40.0 | 309.00 | 0.000190 | 0.001 | 0.000 | 0.000 | 0.000 |
| 60.0 | 256.00 | 0.000170 | 0.001 | 0.000 | 0.000 | 0.000 |
| 120.0 | 220.00 | 0.000150 | 0.001 | 0.000 | 0.000 | 0.000 |
| 360.0 | 185.00 | 0.000140 | 0.000 | 0.000 | 0.000 | 0.000 |
| 720.0 | 281.00 | 0.000190 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1080.0 | 57.00 | 0.000010 | 0.000 | 0.000 | 0.000 | 0.000 |

# Decomposition Data from Cone Calorimeter

Material Code: PIN002
Material ID: PINE (842)
Form: BOARD
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): V Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 72.300 g Final Mass: 13.900 g
Ignition Time: 145.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 13770.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0232 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120.0 | 0.00 | 0.022000 | 0.170 | 1.667 | 0.000 | 0.000 |
| 150.0 | 159.60 | 0.098000 | 0.023 | 1.612 | 0.000 | 0.000 |
| 180.0 | 103.20 | 0.070000 | 0.034 | 1.865 | 0.000 | 0.000 |
| 240.0 | 67.30 | 0.051000 | 0.072 | 1.985 | 0.000 | 0.000 |
| 360.0 | 60.20 | 0.052000 | 0.077 | 1.817 | 0.000 | 0.000 |
| 600.0 | 91.30 | 0.066000 | 0.042 | 1.884 | 0.000 | 0.000 |
| 770.0 | 130.40 | 0.090000 | 0.029 | 1.713 | 0.000 | 0.000 |
| 900.0 | 62.90 | 0.041000 | 0.112 | 2.305 | 0.000 | 0.000 |
| 1080.0 | 40.20 | 0.022000 | 0.242 | 3.330 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: RDO002
Material ID: RED OAK,7/8IN.THICK (1456)
Form: BOARD
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 100.00 kW/m2
Initial Mass: 151.800 g Final Mass: 0.000 g
Ignition Time: 6.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 12950.0 |
| CO Yield | kg/kg | 0.0104 |
| CO2 Yield | kg/kg | 0.0026 |
| HC Yield | kg/kg | 0.0014 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.6284 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 10.0 | 172.90 | 0.239000 | 0.001 | 0.162 | 0.000 | 0.000 |
| 20.0 | 335.80 | 0.228000 | 0.002 | 0.005 | 0.000 | 0.000 |
| 45.0 | 243.70 | 0.181000 | 0.006 | 0.000 | 0.000 | 0.000 |
| 70.0 | 204.10 | 0.161000 | 0.007 | 0.000 | 0.000 | 0.000 |
| 401.0 | 156.60 | 0.144000 | 0.004 | 0.000 | 0.000 | 0.000 |
| 626.0 | 235.70 | 0.196000 | 0.009 | 0.000 | 0.000 | 0.000 |
| 751.0 | 146.10 | 0.090000 | 0.008 | 0.000 | 0.000 | 0.000 |
| 851.0 | 40.90 | 0.021000 | 0.005 | 0.000 | 0.000 | 0.000 |
| 1426.0 | 31.90 | 0.002000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: DFR003
Material ID: DOUGLAS FIR (828)
Form: BOARD
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 50.00 kW/m2
Initial Mass: 73.700 g Final Mass: 8.500 g
Ignition Time: 16.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 12820.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 1.70 | 0.000000 | 0.005 | 0.051 | 0.000 | 0.000 |
| 10.0 | 44.60 | 0.124000 | 0.031 | 1.374 | 0.000 | 0.000 |
| 15.0 | 191.60 | 0.117000 | 0.032 | 1.420 | 0.000 | 0.000 |
| 25.0 | 141.20 | 0.096000 | 0.041 | 1.544 | 0.000 | 0.000 |
| 60.0 | 83.10 | 0.067000 | 0.068 | 1.916 | 0.000 | 0.000 |
| 120.0 | 64.30 | 0.057000 | 0.089 | 1.823 | 0.000 | 0.000 |
| 600.0 | 81.70 | 0.065000 | 0.068 | 1.759 | 0.000 | 0.000 |
| 750.0 | 111.30 | 0.087000 | 0.043 | 1.572 | 0.000 | 0.000 |
| 900.0 | 55.70 | 0.031000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1200.0 | 35.40 | 0.014000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: PIN002
Material ID: PINE (838)
Form: BOARD
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): V Ignition Mode(P/N): P Incident Energy: 50.00 kW/m2
Initial Mass: 75.400 g Final Mass: 8.900 g
Ignition Time: 17.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 14220.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 1.40 | 0.000000 | 0.004 | 0.032 | 0.000 | 0.000 |
| 10.0 | 3.00 | 0.126000 | 0.033 | 1.247 | 0.000 | 0.000 |
| 20.0 | 223.20 | 0.131000 | 0.028 | 1.398 | 0.000 | 0.000 |
| 50.0 | 136.20 | 0.093000 | 0.034 | 1.632 | 0.000 | 0.000 |
| 80.0 | 110.90 | 0.082000 | 0.039 | 1.713 | 0.000 | 0.000 |
| 300.0 | 99.70 | 0.076000 | 0.041 | 1.666 | 0.000 | 0.000 |
| 550.0 | 178.30 | 0.125000 | 0.025 | 1.466 | 0.000 | 0.000 |
| 620.0 | 156.20 | 0.087000 | 0.040 | 1.817 | 0.000 | 0.000 |
| 690.0 | 61.80 | 0.028000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 720.0 | 54.90 | 0.020000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: DFP002
Material ID: DOUGLAS FIR PLYWOOD,1/2IN.THICK (435)
Form: BOARD
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 0.000 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 0.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 78.0 | -3.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 81.0 | 8.60 | 0.108000 | 0.004 | 1.350 | 0.000 | 0.000 |
| 96.0 | 171.00 | 0.096000 | 0.004 | 1.770 | 0.000 | 0.000 |
| 120.0 | 204.30 | 0.085000 | 0.005 | 1.910 | 0.000 | 0.000 |
| 180.0 | 87.50 | 0.056000 | 0.010 | 1.560 | 0.000 | 0.000 |
| 300.0 | 66.80 | 0.057000 | 0.013 | 1.490 | 0.000 | 0.000 |
| 465.0 | 133.90 | 0.114000 | 0.003 | 1.250 | 0.000 | 0.000 |
| 522.0 | 172.60 | 0.113000 | 0.009 | 1.410 | 0.000 | 0.000 |
| 702.0 | 64.80 | 0.018000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 828.0 | 47.20 | 0.007000 | 0.000 | 0.000 | 0.000 | 0.000 |

# Decomposition Data from Cone Calorimeter

Material Code: DFP002
Material ID: DOUGLAS FIR PLYWOOD,1/2IN.THICK (446)
Form: BOARD
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 75.00 kW/m2
Initial Mass: 0.000 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 0.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | -3.80 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 3.0 | 1.50 | 0.172000 | 0.005 | 0.140 | 0.000 | 0.000 |
| 15.0 | 259.60 | 0.150000 | 0.011 | 1.600 | 0.000 | 0.000 |
| 45.0 | 352.90 | 0.136000 | 0.013 | 1.350 | 0.000 | 0.000 |
| 96.0 | 132.60 | 0.108000 | 0.009 | 1.080 | 0.000 | 0.000 |
| 174.0 | 139.70 | 0.128000 | 0.008 | 1.050 | 0.000 | 0.000 |
| 279.0 | 248.90 | 0.157000 | 0.010 | 1.160 | 0.000 | 0.000 |
| 420.0 | 69.00 | 0.023000 | 0.044 | 2.700 | 0.000 | 0.000 |
| 930.0 | 42.20 | 0.010000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1819.0 | 29.60 | 0.007000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: GBD002
Material ID: GYPSUM BOARD,1/2IN.THICK (434)
Form:
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 0.000 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 0.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | -7.80 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 231.0 | -6.40 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 234.0 | 8.00 | 0.028000 | 0.019 | 3.940 | 0.000 | 0.000 |
| 243.0 | 82.00 | 0.032000 | 0.064 | 1.690 | 0.000 | 0.000 |
| 246.0 | 81.90 | 0.028000 | 0.079 | 1.560 | 0.000 | 0.000 |
| 252.0 | 46.10 | 0.022000 | 0.101 | 1.560 | 0.000 | 0.000 |
| 258.0 | 16.70 | 0.021000 | 0.101 | 1.570 | 0.000 | 0.000 |
| 264.0 | 13.10 | 0.023000 | 0.084 | 1.370 | 0.000 | 0.000 |
| 267.0 | 6.40 | 0.021000 | 0.087 | 1.500 | 0.000 | 0.000 |
| 288.0 | 1.10 | 0.021000 | 0.052 | 1.330 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: GBD002
Material ID: GYPSUM BOARD,1/2IN.THICK (448)
Form:
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 75.00 kW/m2
Initial Mass: 0.000 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 0.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 12.80 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 3.0 | 7.90 | 0.085000 | 0.016 | 0.280 | 0.000 | 0.000 |
| 18.0 | 15.10 | 0.075000 | 0.016 | 1.720 | 0.000 | 0.000 |
| 24.0 | 89.60 | 0.071000 | 0.018 | 1.810 | 0.000 | 0.000 |
| 30.0 | 161.10 | 0.069000 | 0.054 | 1.320 | 0.000 | 0.000 |
| 36.0 | 144.80 | 0.065000 | 0.108 | 0.920 | 0.000 | 0.000 |
| 42.0 | 82.90 | 0.065000 | 0.092 | 0.830 | 0.000 | 0.000 |
| 51.0 | 49.40 | 0.060000 | 0.079 | 0.760 | 0.000 | 0.000 |
| 57.0 | 48.30 | 0.056000 | 0.064 | 0.680 | 0.000 | 0.000 |
| 96.0 | 15.40 | 0.039000 | 0.041 | 0.660 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: RD0002
Material ID: RED OAK,7/8IN.THICK (1454)
Form:
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 156.900 g Final Mass: 0.000 g
Ignition Time: 169.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 11550.0 |
| CO Yield | kg/kg | 0.0089 |
| CO2 Yield | kg/kg | 1.1589 |
| HC Yield | kg/kg | 0.0051 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.6362 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 4.262 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 110.0 | 0.00 | 0.000000 | 0.000 | 0.002 | 0.000 | 0.000 |
| 160.0 | 1.12 | 0.090000 | 0.006 | 1.818 | 0.000 | 0.000 |
| 175.0 | 203.47 | 0.125000 | 0.004 | 1.254 | 0.000 | 0.000 |
| 190.0 | 137.73 | 0.095000 | 0.004 | 1.302 | 0.000 | 0.000 |
| 200.0 | 118.19 | 0.098000 | 0.004 | 1.172 | 0.000 | 0.000 |
| 290.0 | 70.39 | 0.063000 | 0.002 | 1.155 | 0.000 | 0.000 |
| 900.0 | 59.28 | 0.062000 | 0.001 | 1.029 | 0.000 | 0.000 |
| 1200.0 | 89.31 | 0.084000 | 0.001 | 1.158 | 0.000 | 0.000 |
| 1400.0 | 146.42 | 0.128000 | 0.002 | 1.178 | 0.000 | 0.000 |
| 1975.0 | 26.43 | 0.013000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: MMA001
Material ID: PMMA 1" BLACK (CB) W/FRAME TEST 1470
Form: SHEET
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): V Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 304.900 g Final Mass: 0.000 g
Ignition Time: 172.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 24000.0 |
| CO Yield | kg/kg | 0.0013 |
| CO2 Yield | kg/kg | 1.9401 |
| HC Yield | kg/kg | 0.0019 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.7829 |
| SOOT Yield | kg/kg | 0.0143 |
| Extinction Area | m2/kg | 95.704 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 165.0 | 1.86 | 0.000001 | 0.000 | 2.370 | 0.014 | 0.000 |
| 185.0 | 302.20 | 0.000126 | 0.000 | 1.993 | 0.014 | 0.000 |
| 500.0 | 397.56 | 0.000166 | 0.001 | 1.970 | 0.014 | 0.000 |
| 900.0 | 471.73 | 0.000196 | 0.001 | 1.947 | 0.014 | 0.000 |
| 1200.0 | 528.13 | 0.000220 | 0.001 | 1.892 | 0.014 | 0.000 |
| 1500.0 | 603.84 | 0.000252 | 0.001 | 1.892 | 0.014 | 0.000 |
| 1670.0 | 698.82 | 0.000291 | 0.001 | 1.975 | 0.014 | 0.000 |
| 1800.0 | 332.71 | 0.000139 | 0.002 | 2.013 | 0.014 | 0.000 |
| 2000.0 | 73.45 | 0.000031 | 0.011 | 2.402 | 0.014 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: MMA001
Material ID: PMMA 1" BLACK (CB) W/FRAME TEST 1461
Form: SHEET
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): V Ignition Mode(P/N): P Incident Energy: 75.00 kW/m2
Initial Mass: 308.300 g Final Mass: 0.000 g
Ignition Time: 19.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 24000.0 |
| CO Yield | kg/kg | 0.0062 |
| CO2 Yield | kg/kg | 2.0068 |
| HC Yield | kg/kg | 0.0004 |
| HCl Yield | kg/kg | 0.0005 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.7869 |
| SOOT Yield | kg/kg | 0.0184 |
| Extinction Area | m2/kg | 108.735 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 15.0 | 3.02 | 0.000001 | 0.001 | 2.614 | 0.018 | 0.000 |
| 30.0 | 459.64 | 0.000192 | 0.001 | 2.021 | 0.018 | 0.000 |
| 60.0 | 605.43 | 0.000252 | 0.004 | 1.967 | 0.018 | 0.000 |
| 120.0 | 725.79 | 0.000302 | 0.005 | 2.024 | 0.018 | 0.000 |
| 180.0 | 797.31 | 0.000332 | 0.006 | 1.989 | 0.018 | 0.000 |
| 240.0 | 808.86 | 0.000337 | 0.006 | 2.015 | 0.018 | 0.000 |
| 300.0 | 812.53 | 0.000339 | 0.006 | 2.020 | 0.018 | 0.000 |
| 600.0 | 902.76 | 0.000376 | 0.006 | 2.003 | 0.018 | 0.000 |
| 765.0 | 1099.23 | 0.000458 | 0.006 | 2.091 | 0.018 | 0.000 |
| 900.0 | 323.86 | 0.000135 | 0.010 | 1.840 | 0.018 | 0.000 |

# Decomposition Data from Cone Calorimeter

Material Code: MAT001
Material ID: MATTRESS ASS'Y M05,PU FOAM,RAYON TICKING TEST 296
Form: COMPOSITE
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 17.100 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 34300.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 15.0 | 0.00 | 0.126000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 27.0 | 293.00 | 0.126000 | 0.015 | 1.600 | 0.000 | 0.000 |
| 42.0 | 262.00 | 0.131000 | 0.015 | 1.480 | 0.000 | 0.000 |
| 51.0 | 305.00 | 0.130000 | 0.018 | 1.730 | 0.000 | 0.000 |
| 75.0 | 288.00 | 0.112000 | 0.010 | 1.860 | 0.000 | 0.000 |
| 87.0 | 386.00 | 0.102000 | 0.017 | 2.590 | 0.000 | 0.000 |
| 96.0 | 336.00 | 0.090000 | 0.013 | 2.610 | 0.000 | 0.000 |
| 105.0 | 379.00 | 0.072000 | 0.022 | 3.620 | 0.000 | 0.000 |
| 138.0 | 62.00 | 0.013000 | 0.010 | 5.500 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: PIN002
Material ID: WHITE PINE (WOOD),0.75 IN (TEST 493)
Form: BOARD
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 72.900 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 8340.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 42.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 54.0 | 157.40 | 0.000189 | 0.048 | 4.500 | 0.000 | 0.000 |
| 78.0 | 87.60 | 0.000105 | 0.031 | 3.400 | 0.000 | 0.000 |
| 126.0 | 54.80 | 0.000066 | 0.024 | 2.750 | 0.000 | 0.000 |
| 192.0 | 42.40 | 0.000051 | 0.040 | 2.630 | 0.000 | 0.000 |
| 456.0 | 42.60 | 0.000051 | 0.061 | 2.500 | 0.000 | 0.000 |
| 660.0 | 55.00 | 0.000066 | 0.034 | 2.360 | 0.000 | 0.000 |
| 912.0 | 95.20 | 0.000114 | 0.010 | 2.110 | 0.000 | 0.000 |
| 1296.0 | 25.90 | 0.000031 | 0.321 | 3.970 | 0.000 | 0.000 |
| 3745.0 | 10.90 | 0.000013 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: PIN002
Material ID: WHITE PINE (WOOD),0.75 IN (TEST 487)
Form: BOARD
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 75.00 kW/m2
Initial Mass: 72.400 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 16500.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6.0 | 276.40 | 0.000168 | 0.019 | 2.840 | 0.000 | 0.000 |
| 60.0 | 111.70 | 0.000068 | 0.006 | 1.680 | 0.000 | 0.000 |
| 156.0 | 88.10 | 0.000053 | 0.000 | 1.810 | 0.000 | 0.000 |
| 300.0 | 102.50 | 0.000062 | 0.003 | 1.650 | 0.000 | 0.000 |
| 468.0 | 151.70 | 0.000092 | 0.010 | 1.570 | 0.000 | 0.000 |
| 558.0 | 151.90 | 0.000092 | 0.004 | 1.760 | 0.000 | 0.000 |
| 678.0 | 52.10 | 0.000032 | 0.023 | 3.900 | 0.000 | 0.000 |
| 864.0 | 34.50 | 0.000021 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1858.0 | 30.00 | 0.000019 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: FPU007
Material ID: FLEXIBLE POLYURETHANE FOAM,FR,2 IN (TEST 725)
Form: FOAM
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 10.700 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 19350.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 40.0 | 0.00 | 0.000000 | 0.017 | 0.680 | 0.000 | 0.000 |
| 50.0 | 233.90 | 0.000121 | 0.065 | 1.220 | 0.000 | 0.000 |
| 70.0 | 266.20 | 0.000138 | 0.055 | 1.320 | 0.000 | 0.000 |
| 80.0 | 445.70 | 0.000230 | 0.052 | 1.910 | 0.000 | 0.000 |
| 105.0 | 276.50 | 0.000143 | 0.087 | 4.070 | 0.000 | 0.000 |
| 115.0 | 52.40 | 0.000027 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130.0 | 20.90 | 0.000011 | 0.000 | 0.000 | 0.000 | 0.000 |
| 160.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: PSF004
Material ID: POLYSTYRENE FOAM,2 IN (TEST 437)
Form: FOAM
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 15.500 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 28900.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.039 | 1.110 | 0.000 | 0.000 |
| 141.0 | 1.00 | 0.000000 | 0.061 | 1.720 | 0.000 | 0.000 |
| 162.0 | 235.80 | 0.000082 | 0.085 | 2.360 | 0.000 | 0.000 |
| 186.0 | 379.80 | 0.000131 | 0.077 | 2.340 | 0.000 | 0.000 |
| 201.0 | 405.10 | 0.000140 | 0.115 | 3.620 | 0.000 | 0.000 |
| 255.0 | 251.40 | 0.000087 | 0.057 | 4.390 | 0.000 | 0.000 |
| 285.0 | 204.40 | 0.000071 | 0.062 | 4.870 | 0.000 | 0.000 |
| 306.0 | 24.70 | 0.000009 | 0.000 | 0.000 | 0.000 | 0.000 |
| 345.0 | 19.20 | 0.000007 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: CTN002
Material ID: COTTON FABRIC,FR (TEST 803A)
Form: FABRIC
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 4.200 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 8980.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 35.0 | 1.40 | 0.000002 | 0.028 | 0.310 | 0.000 | 0.000 |
| 45.0 | 70.70 | 0.000079 | 0.138 | 1.510 | 0.000 | 0.000 |
| 70.0 | 17.00 | 0.000019 | 0.563 | 4.750 | 0.000 | 0.000 |
| 95.0 | 22.40 | 0.000025 | 0.140 | 0.710 | 0.000 | 0.000 |
| 135.0 | 15.20 | 0.000017 | 0.000 | 0.000 | 0.000 | 0.000 |
| 200.0 | 5.80 | 0.000006 | 0.000 | 0.000 | 0.000 | 0.000 |
| 260.0 | 4.50 | 0.000006 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: RYN001
Material ID: RAYON FABRIC (TEST 804A)
Form: FABRIC
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 1.500 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 9000.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 30.0 | 0.00 | 0.000000 | 0.011 | 0.010 | 0.000 | 0.000 |
| 35.0 | 40.50 | 0.000045 | 0.011 | 0.010 | 0.000 | 0.000 |
| 40.0 | 89.00 | 0.000099 | 0.013 | 0.020 | 0.000 | 0.000 |
| 45.0 | 52.00 | 0.000058 | 0.013 | 0.030 | 0.000 | 0.000 |
| 50.0 | 17.90 | 0.000020 | 0.015 | 0.030 | 0.000 | 0.000 |
| 55.0 | 9.80 | 0.000011 | 0.016 | 0.030 | 0.000 | 0.000 |
| 80.0 | 4.90 | 0.000005 | 0.014 | 0.020 | 0.000 | 0.000 |
| 131.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

# Decomposition Data from Cone Calorimeter

Material Code: RPU001
Material ID: RIGID POLYURETHANE FOAM,GM-29/GM-30 (TEST 257)
Form: FOAM
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 19.000 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 18310.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 3.0 | 0.00 | 0.000000 | 0.004 | 0.310 | 0.000 | 0.000 |
| 15.0 | 208.70 | 0.000114 | 0.290 | 3.060 | 0.000 | 0.000 |
| 45.0 | 90.20 | 0.000049 | 0.091 | 1.940 | 0.000 | 0.000 |
| 75.0 | 44.40 | 0.000024 | 0.063 | 1.480 | 0.000 | 0.000 |
| 171.0 | 37.40 | 0.000020 | 0.046 | 1.440 | 0.000 | 0.000 |
| 240.0 | 43.70 | 0.000024 | 0.068 | 2.370 | 0.000 | 0.000 |
| 321.0 | 24.40 | 0.000013 | 0.096 | 4.820 | 0.000 | 0.000 |
| 399.0 | 2.60 | 0.000001 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: RPU002
Material ID: RIGID POLYURETHANE FOAM,FR,GM-31 (TEST 258)
Form: FOAM
Density: 0.00 kg/m3 ·Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 19.400 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 22750.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6.0 | 24.80 | 0.000011 | 0.122 | 1.880 | 0.000 | 0.000 |
| 12.0 | 113.60 | 0.000050 | 0.199 | 3.910 | 0.000 | 0.000 |
| 24.0 | 87.20 | 0.000038 | 0.134 | 3.720 | 0.000 | 0.000 |
| 48.0 | 48.20 | 0.000021 | 0.082 | 2.640 | 0.000 | 0.000 |
| 63.0 | 30.30 | 0.000013 | 0.080 | 2.180 | 0.000 | 0.000 |
| 75.0 | 8.20 | 0.000004 | 0.038 | 1.410 | 0.000 | 0.000 |
| 90.0 | 0.30 | 0.000000 | 0.035 | 1.480 | 0.000 | 0.000 |
| 102.0 | 5.50 | 0.000002 | 0.039 | 1.550 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: RPI002
Material ID: RIGID POLYISOCYANURATE FOAM,2 IN (TEST 438)
Form: FOAM
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 17.700 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 12560.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 9.0 | 50.30 | 0.000040 | 0.036 | 2.050 | 0.000 | 0.000 |
| 15.0 | 38.80 | 0.000031 | 0.039 | 2.160 | 0.000 | 0.000 |
| 21.0 | 10.40 | 0.000008 | 0.061 | 1.870 | 0.000 | 0.000 |
| 33.0 | 4.70 | 0.000004 | 0.073 | 2.700 | 0.000 | 0.000 |
| 54.0 | 14.60 | 0.000012 | 0.055 | 2.830 | 0.000 | 0.000 |
| 69.0 | 4.70 | 0.000004 | 0.114 | 2.900 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: RPI002
Material ID: RIGID POLYISOCYANURATE FOAM,2 IN (TEST 449)
Form: FOAM
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 75.00 kW/m2
Initial Mass: 17.600 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 31100.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 6.0 | 150.30 | 0.000048 | 0.071 | 1.790 | 0.000 | 0.000 |
| 54.0 | 88.10 | 0.000028 | 0.060 | 1.800 | 0.000 | 0.000 |
| 72.0 | 116.00 | 0.000037 | 0.067 | 1.930 | 0.000 | 0.000 |
| 117.0 | 52.90 | 0.000017 | 0.101 | 1.990 | 0.000 | 0.000 |
| 144.0 | 67.00 | 0.000022 | 0.103 | 2.460 | 0.000 | 0.000 |
| 249.0 | 36.00 | 0.000012 | 0.206 | 3.230 | 0.000 | 0.000 |
| 324.0 | 68.40 | 0.000022 | 0.319 | 4.400 | 0.000 | 0.000 |
| 450.0 | 43.20 | 0.000014 | 0.521 | 4.450 | 0.000 | 0.000 |
| 654.0 | 36.10 | 0.000012 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: PVC002
Material ID: POLYVINYL CHLORIDE,0.5 IN THICK (TEST 333)
Form: SHEET
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 75.00 kW/m2
Initial Mass: 170.700 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 8300.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 30.0 | 20.50 | 0.000025 | 0.048 | 0.340 | 0.000 | 0.000 |
| 39.0 | 93.10 | 0.000112 | 0.088 | 0.540 | 0.000 | 0.000 |
| 60.0 | 65.40 | 0.000079 | 0.074 | 0.500 | 0.000 | 0.000 |
| 72.0 | 74.60 | 0.000090 | 0.079 | 0.560 | 0.000 | 0.000 |
| 189.0 | 59.90 | 0.000072 | 0.074 | 0.610 | 0.000 | 0.000 |
| 531.0 | 87.10 | 0.000105 | 0.062 | 0.580 | 0.000 | 0.000 |
| 573.0 | 78.50 | 0.000095 | 0.060 | 0.550 | 0.000 | 0.000 |
| 690.0 | 98.00 | 0.000118 | 0.062 | 0.590 | 0.000 | 0.000 |
| 720.0 | 45.80 | 0.000055 | 0.052 | 0.330 | 0.000 | 0.000 |

Decomposition Data from Cone Calorimeter

Material Code: WNE001
Material ID: WOOL FABRIC/NEOPRENE PADDING (TEST 722)
Form: COMPOSITE
Density: 0.00 kg/m3 Thickness:0.00000 m

Orientation(V/H): H Ignition Mode(P/N): P Incident Energy: 25.00 kW/m2
Initial Mass: 82.700 g Final Mass: 0.000 g
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 9000.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW/m2) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 30.0 | 0.00 | 0.000000 | 0.016 | 0.430 | 0.000 | 0.000 |
| 45.0 | 316.00 | 0.000350 | 0.048 | 2.410 | 0.000 | 0.000 |
| 65.0 | 63.50 | 0.000071 | 0.064 | 2.180 | 0.000 | 0.000 |
| 90.0 | 7.20 | 0.000008 | 0.097 | 1.660 | 0.000 | 0.000 |
| 120.0 | 8.20 | 0.000009 | 0.080 | 1.600 | 0.000 | 0.000 |
| 300.0 | 13.20 | 0.000015 | 0.101 | 1.730 | 0.000 | 0.000 |
| 450.0 | 15.30 | 0.000017 | 0.163 | 2.040 | 0.000 | 0.000 |
| 590.0 | 17.10 | 0.000019 | 0.160 | 2.060 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

# SECTION 3 - DECOMPOSITION DATA FROM THE FURNITURE CALORIMETER

Decomposition Data from Furniture Calorimeter

Material Code: UPC001
Material ID: UPHOLSTERED CHAIR,F21,WOOD FRAME,PU FOAM-FR,OLEFIN
Configuration:CENTER
Ignition Source: GAS BURNER,50KW,200S

Initial Mass: 28.300 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 18100.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 60.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150.0 | 90.00 | 0.005000 | 0.030 | 0.670 | 0.008 | 0.000 |
| 200.0 | 450.00 | 0.025000 | 0.024 | 0.760 | 0.015 | 0.000 |
| 260.0 | 2100.00 | 0.116000 | 0.016 | 1.070 | 0.020 | 0.000 |
| 325.0 | 600.00 | 0.033000 | 0.000 | 0.710 | 0.022 | 0.000 |
| 450.0 | 150.00 | 0.008000 | 0.016 | 0.590 | 0.001 | 0.000 |
| 600.0 | 150.00 | 0.008000 | 0.000 | 0.540 | 0.000 | 0.000 |
| 900.0 | 90.00 | 0.005000 | 0.000 | 0.750 | 0.000 | 0.000 |
| 2000.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: UPS001
Material ID: UPHOLSTERED\SOFA,F32,WOOD\FRAME,PU FOAM-FR,OLEFIN TEST38
Configuration:CENTER
Ignition Source: GAS BURNER,50KW,200S

Initial Mass: 51.500 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 18900.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 100.0 | 150.00 | 0.008000 | 0.000 | 0.740 | 0.012 | 0.000 |
| 150.0 | 600.00 | 0.032000 | 0.022 | 1.280 | 0.014 | 0.000 |
| 215.0 | 3120.00 | 0.165000 | 0.015 | 0.850 | 0.023 | 0.000 |
| 290.0 | 2800.00 | 0.148000 | 0.013 | 0.660 | 0.024 | 0.000 |
| 400.0 | 400.00 | 0.021000 | 0.016 | 0.830 | 0.006 | 0.000 |
| 500.0 | 225.00 | 0.012000 | 0.009 | 0.780 | 0.000 | 0.000 |
| 700.0 | 200.00 | 0.011000 | 0.000 | 0.660 | 0.000 | 0.000 |
| 1200.0 | 50.00 | 0.003000 | 0.000 | 0.900 | 0.000 | 0.000 |
| 2400.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: MAT001
Material ID: MATTRESS,M05,PU FOAM,RAYON TICKING,BEDDING
Configuration:CENTER
Ignition Source: WASTEBASKET+0.72KG CONT

Initial Mass: 10.500 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 34300.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 370.0 | 0.00 | 0.003000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 480.0 | 1580.00 | 0.046000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 700.0 | 0.00 | 0.008000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 800.0 | 0.00 | 0.004000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 900.0 | 0.00 | 0.004000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 910.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: CHR003
Material ID: EASY CHAIR,MOLDED PS FOAM FRAME,PU PAD&COVER,C07,TEST 48
Configuration:CENTER
Ignition Source: GAS BURNER,50KW,200S

Initial Mass: 11.520 kg Final Mass: 1.500 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 33300.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.022 | 0.000 | 0.000 |
| 120.0 | 58.00 | 0.001700 | 0.024 | 0.443 | 0.043 | 0.000 |
| 240.0 | 956.00 | 0.028700 | 0.062 | 1.070 | 0.041 | 0.000 |
| 300.0 | 857.00 | 0.025700 | 0.074 | 1.340 | 0.057 | 0.000 |
| 330.0 | 465.00 | 0.013900 | 0.079 | 1.390 | 0.065 | 0.000 |
| 400.0 | 592.00 | 0.017700 | 0.081 | 1.480 | 0.097 | 0.000 |
| 600.0 | 127.00 | 0.003800 | 0.158 | 2.730 | 0.135 | 0.000 |
| 800.0 | 30.00 | 0.000900 | 1.390 | 8.080 | 0.000 | 0.000 |
| 1200.0 | 0.00 | 0.000000 | 0.691 | 1.140 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: CUR001
Material ID: CURTAIN,COTTON,0.31KG/M2,ITEM 9
Configuration:CENTER
Ignition Source: 5ML ISOPROPANOL

Initial Mass: 1.870 kg Final Mass: 0.170 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 14000.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 140.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 175.0 | 240.00 | 0.017100 | 0.000 | 0.000 | 0.000 | 0.000 |
| 290.0 | 0.00 | 0.002100 | 0.000 | 0.000 | 0.000 | 0.000 |
| 410.0 | 0.00 | 0.000700 | 0.000 | 0.000 | 0.000 | 0.000 |
| 600.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: WPB001
Material ID: WASTEPAPER BASKET,POLYETHYLENE,MILK CARTONS,EXP.7
Configuration:CENTER
Ignition Source: 10ML ISOPROPANOL

Initial Mass: 0.930 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 17600.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 240.0 | 0.00 | 0.000100 | 0.000 | 0.000 | 0.000 | 0.000 |
| 350.0 | 15.00 | 0.000850 | 0.000 | 0.000 | 0.000 | 0.000 |
| 600.0 | 0.00 | 0.000650 | 0.000 | 0.000 | 0.000 | 0.000 |
| 750.0 | 0.00 | 0.000140 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1020.0 | 0.00 | 0.000110 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1025.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: TLV001
Material ID: TELEVISION SET,B/W,WOOD CABINET,EXP.3
Configuration:CENTER
Ignition Source: 100ML ISOPROPANOL

Initial Mass: 39.800 kg Final Mass: 29.600 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 15000.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 375.0 | 0.00 | 0.000500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 520.0 | 0.00 | 0.005300 | 0.000 | 0.000 | 0.000 | 0.000 |
| 670.0 | 290.00 | 0.019300 | 0.000 | 0.000 | 0.000 | 0.000 |
| 740.0 | 0.00 | 0.012000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1100.0 | 0.00 | 0.006000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1400.0 | 0.00 | 0.005300 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1800.0 | 0.00 | 0.002000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

```
                Decomposition Data from Furniture Calorimeter

     Material Code: CKG001
     Material ID: COOKING OIL,CORN;COTTONSEED;ETC IN 12IN.PAN
     Configuration:POOL
     Ignition Source:


     Initial Mass:     0.000 kg    Final Mass:    0.000 kg
     Ignition Time:     0.0 s

                        Units      Average
  Heat of Combustion    kJ/kg      40000.0
  CO     Yield          kg/kg       0.0000
  CO2    Yield          kg/kg       0.0000
  HC     Yield          kg/kg       0.0000
  HCl    Yield          kg/kg       0.0000
  HCN    Yield          kg/kg       0.0000
  H2O    Yield          kg/kg       0.0000
  SOOT   Yield          kg/kg       0.0000
  Extinction Area       m2/kg       0.000

                               Time Dependent Data
             Heat        Mass        CO          CO2
     Time   Release      Loss       Yield       Yield       Yield       Yield
     (s)     (kW)       (kg/s)     (kg/kg)     (kg/kg)     (kg/kg)     (kg/kg)
       0.0     0.00    0.000000    0.000       0.000       0.000       0.000
       5.0  1600.00    0.002920    0.000       0.000       0.000       0.000
    1000.0  1600.00    0.002920    0.000       0.000       0.000       0.000
       0.0     0.00    0.000000    0.000       0.000       0.000       0.000
       0.0     0.00    0.000000    0.000       0.000       0.000       0.000
       0.0     0.00    0.000000    0.000       0.000       0.000       0.000
       0.0     0.00    0.000000    0.000       0.000       0.000       0.000
       0.0     0.00    0.000000    0.000       0.000       0.000       0.000
       0.0     0.00    0.000000    0.000       0.000       0.000       0.000
       0.0     0.00    0.000000    0.000       0.000       0.000       0.000
```

Decomposition Data from Furniture Calorimeter

Material Code: CHR001
Material ID: BEAN BAG CHAIR,VINYL/PS FOAM BEADS,C05 NBS TN 1103
Configuration:CENTER OF ROOM
Ignition Source: NEWSPAPER,396g

Initial Mass: 7.300 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 32800.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 150.0 | 0.00 | 0.002500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 300.0 | 0.00 | 0.001800 | 0.000 | 0.000 | 0.000 | 0.000 |
| 375.0 | 0.00 | 0.003300 | 0.000 | 0.000 | 0.000 | 0.000 |
| 550.0 | 0.00 | 0.015000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 720.0 | 0.00 | 0.014400 | 0.000 | 0.000 | 0.000 | 0.000 |
| 800.0 | 0.00 | 0.004600 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1200.0 | 0.00 | 0.001600 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1350.0 | 0.00 | 0.002500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1500.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: TRB001
Material ID: TRASH BAGS (3),PAPER
Configuration:CENTER
Ignition Source:

Initial Mass: 3.510 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 16000.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 60.0 | 350.00 | 0.021800 | 0.000 | 0.000 | 0.000 | 0.000 |
| 120.0 | 325.00 | 0.020300 | 0.000 | 0.000 | 0.000 | 0.000 |
| 180.0 | 240.00 | 0.015000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 240.0 | 110.00 | 0.006800 | 0.000 | 0.000 | 0.000 | 0.000 |
| 300.0 | 60.00 | 0.003700 | 0.000 | 0.000 | 0.000 | 0.000 |
| 360.0 | 60.00 | 0.003700 | 0.000 | 0.000 | 0.000 | 0.000 |
| 420.0 | 20.00 | 0.001200 | 0.000 | 0.000 | 0.000 | 0.000 |
| 480.0 | 40.00 | 0.002500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 600.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: CTR001
Material ID: CHRISTMAS TREE,SPRUCE,DRY, VTT 285,NO.17
Configuration:CENTER
Ignition Source: 200 ML ISOPROPANOL

Initial Mass: 7.000 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 16000.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 300.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 320.0 | 650.00 | 0.004070 | 0.000 | 0.000 | 0.000 | 0.000 |
| 350.0 | 650.00 | 0.004070 | 0.000 | 0.000 | 0.000 | 0.000 |
| 400.0 | 150.00 | 0.000940 | 0.000 | 0.000 | 0.000 | 0.000 |
| 450.0 | 40.00 | 0.000250 | 0.000 | 0.000 | 0.000 | 0.000 |
| 600.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: CLT001
Material ID: WARDROBE CLOSET,PLYWOOD,FR PAINT NBSIR83-2787 TEST42
Configuration:CENTER
Ignition Source: CARDBOARD BOX/PAPER 0.9KG

Initial Mass: 37.330 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 15900.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 30.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 100.0 | 500.00 | 0.031400 | 0.075 | 0.320 | 0.016 | 0.000 |
| 130.0 | 1300.00 | 0.081700 | 0.082 | 0.610 | 0.019 | 0.000 |
| 170.0 | 5300.00 | 0.333000 | 0.010 | 1.130 | 0.004 | 0.000 |
| 220.0 | 250.00 | 0.015700 | 0.024 | 1.510 | 0.000 | 0.000 |
| 230.0 | 600.00 | 0.037700 | 0.029 | 0.930 | 0.000 | 0.000 |
| 370.0 | 250.00 | 0.015700 | 0.038 | 0.600 | 0.000 | 0.000 |
| 1200.0 | 50.00 | 0.003100 | 0.000 | 0.790 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: BED001
Material ID: DOUBLE BED,BEDDING,NIGHT TABLE;GYP BD WALLS;TEST R1(85-2998)
Configuration:CENTER
Ignition Source: WASTEBASKET&TRASH,0.75 KG

Initial Mass: 53.700 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 18100.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 200.0 | 100.00 | 0.005500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 230.0 | 2100.00 | 0.116000 | 0.040 | 0.000 | 0.000 | 0.000 |
| 290.0 | 200.00 | 0.011000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 480.0 | 100.00 | 0.005500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 650.0 | 400.00 | 0.022000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 690.0 | 1500.00 | 0.082800 | 0.000 | 0.000 | 0.000 | 0.000 |
| 750.0 | 800.00 | 0.044000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 900.0 | 500.00 | 0.027600 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1500.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: BED002
Material ID: DOUBLE BED,BEDDING,NIGHT TABLE;PLYWOOD WALLS;TEST R5(85-2998
Configuration:CENTER
Ignition Source: WASTEBASKET&TRASH,0.75 KG

Initial Mass: 53.700 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 18100.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 260.0 | 300.00 | 0.016500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 280.0 | 3500.00 | 0.193000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 300.0 | 3200.00 | 0.177000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 360.0 | 6800.00 | 0.376000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 430.0 | 6800.00 | 0.376000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 550.0 | 2200.00 | 0.122000 | 0.098 | 0.000 | 0.000 | 0.000 |
| 730.0 | 750.00 | 0.041000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 1500.0 | 300.00 | 0.016500 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: CHR002
Material ID: CHAIR,MOLDED FLEXIBLE PU FRAME,PU COVER TEST 64 (83-2787)
Configuration:CENTER
Ignition Source: GAS BURNER,50KW,200S

Initial Mass: 15.980 kg Final Mass: 1.800 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 21000.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 780.0 | 30.00 | 0.001400 | 0.028 | 0.891 | 0.003 | 0.000 |
| 1200.0 | 205.00 | 0.009700 | 0.016 | 0.876 | 0.007 | 0.000 |
| 1330.0 | 454.00 | 0.021600 | 0.001 | 0.937 | 0.006 | 0.000 |
| 1650.0 | 196.00 | 0.009300 | 0.013 | 0.912 | 0.005 | 0.000 |
| 2300.0 | 55.00 | 0.002600 | 0.034 | 0.543 | 0.002 | 0.000 |
| 2610.0 | 31.00 | 0.001400 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: UPC002
Material ID: CHAIR,F23,WOOD FRAME,FR COTTON BATTING,OLEFIN TEST24(82-2604
Configuration:CENTER
Ignition Source: GAS BURNER,50KW,200S

Initial Mass: 31.200 kg Final Mass: 2.500 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 16100.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 90.0 | 0.00 | 0.000000 | 0.000 | 2.520 | 0.015 | 0.000 |
| 200.0 | 113.00 | 0.007000 | 0.000 | 1.440 | 0.010 | 0.000 |
| 450.0 | 700.00 | 0.043000 | 0.000 | 1.570 | 0.004 | 0.000 |
| 600.0 | 370.00 | 0.023000 | 0.000 | 1.320 | 0.002 | 0.000 |
| 1100.0 | 145.00 | 0.009000 | 0.000 | 1.150 | 0.000 | 0.000 |
| 1400.0 | 100.00 | 0.006000 | 0.000 | 1.100 | 0.000 | 0.000 |
| 1800.0 | 80.00 | 0.005000 | 0.000 | 1.280 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: MAT002
Material ID: MATTRESS+BOXSPRING(WESTCHASE HILTON) TEST 67 (83-2787)
Configuration:CENTER
Ignition Source: CIGARETTE LIGHTER

Initial Mass: 62.360 kg Final Mass: 0.000 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 18000.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | APPEND Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 100.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 540.0 | 200.00 | 0.011000 | 0.067 | 1.130 | 0.000 | 0.000 |
| 640.0 | 530.00 | 0.029000 | 0.020 | 1.180 | 0.000 | 0.000 |
| 750.0 | 290.00 | 0.016000 | 0.048 | 1.350 | 0.000 | 0.000 |
| 835.0 | 290.00 | 0.016000 | 0.097 | 1.370 | 0.000 | 0.000 |
| 910.0 | 660.00 | 0.037000 | 0.037 | 1.230 | 0.000 | 0.000 |
| 980.0 | 420.00 | 0.023000 | 0.040 | 1.380 | 0.000 | 0.000 |
| 1140.0 | 240.00 | 0.013000 | 0.077 | 1.140 | 0.000 | 0.000 |
| 1450.0 | 110.00 | 0.006000 | 0.102 | 1.620 | 0.000 | 0.000 |
| 1900.0 | 70.00 | 0.004000 | 0.116 | 1.540 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: UPS002
Material ID: LOVESEAT,F31,WOOD FRAME,PU FOAM(FR),OLEFIN (TEST 37) 82-2604
Configuration: CENTER(LG HOOD
Ignition Source: GAS BURNER,50KW,200S

Initial Mass: 40.400 kg Final Mass: 5.200 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 17500.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 20.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 100.0 | 132.00 | 0.007500 | 0.011 | 1.010 | 0.008 | 0.000 |
| 150.0 | 451.00 | 0.025700 | 0.027 | 1.280 | 0.019 | 0.000 |
| 230.0 | 2886.00 | 0.165000 | 0.031 | 2.100 | 0.022 | 0.000 |
| 250.0 | 2848.00 | 0.163000 | 0.029 | 1.750 | 0.020 | 0.000 |
| 350.0 | 613.00 | 0.035000 | 0.032 | 1.660 | 0.021 | 0.000 |
| 450.0 | 200.00 | 0.011400 | 0.016 | 1.030 | 0.000 | 0.000 |
| 800.0 | 200.00 | 0.011400 | 0.014 | 1.040 | 0.000 | 0.000 |
| 1400.0 | 100.00 | 0.005700 | 0.000 | 1.500 | 0.000 | 0.000 |
| 2200.0 | 28.00 | 0.001600 | 0.000 | 0.860 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: UPC003
Material ID: UPHOLSTERED CHAIR,F25,WOOD FRAME,PU FOAM,OLEFIN,TEST29
Configuration: CENTER
Ignition Source: GAS BURNER,50KW,200SEC

Initial Mass: 27.800 kg Final Mass: 3.100 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 17000.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 90.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.017 | 0.000 |
| 140.0 | 157.00 | 0.009200 | 0.000 | 1.078 | 0.012 | 0.000 |
| 180.0 | 770.00 | 0.045200 | 0.013 | 1.316 | 0.016 | 0.000 |
| 230.0 | 770.00 | 0.045200 | 0.000 | 1.403 | 0.015 | 0.000 |
| 260.0 | 1992.00 | 0.117100 | 0.005 | 1.596 | 0.008 | 0.000 |
| 330.0 | 698.00 | 0.041000 | 0.004 | 1.532 | 0.013 | 0.000 |
| 370.0 | 370.00 | 0.021700 | 0.021 | 1.384 | 0.007 | 0.000 |
| 430.0 | 260.00 | 0.015200 | 0.021 | 1.053 | 0.004 | 0.000 |
| 1000.0 | 126.00 | 0.007400 | 0.000 | 1.128 | 0.003 | 0.000 |
| 0.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: UPC004
Material ID: UPHOLS.CHAIR,F28,WOOD FRAME,PU/PE/CTN BEDDING,COTTON TEST28
Configuration: CENTER
Ignition Source: GAS BURNER,50KW,200SEC

Initial Mass: 29.200 kg Final Mass: 4.400 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 14900.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 40.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 130.0 | 50.00 | 0.003300 | 0.000 | 1.882 | 0.004 | 0.000 |
| 200.0 | 50.00 | 0.003300 | 0.000 | 1.211 | 0.002 | 0.000 |
| 330.0 | 423.00 | 0.028300 | 0.000 | 1.610 | 0.005 | 0.000 |
| 370.0 | 423.00 | 0.028300 | 0.000 | 1.429 | 0.005 | 0.000 |
| 420.0 | 730.00 | 0.048900 | 0.000 | 1.499 | 0.005 | 0.000 |
| 500.0 | 586.00 | 0.039300 | 0.002 | 1.548 | 0.005 | 0.000 |
| 550.0 | 395.00 | 0.026500 | 0.000 | 1.556 | 0.007 | 0.000 |
| 700.0 | 204.00 | 0.013600 | 0.006 | 1.234 | 0.002 | 0.000 |
| 1000.0 | 106.00 | 0.007100 | 0.000 | 1.044 | 0.002 | 0.000 |

Decomposition Data from Furniture Calorimeter

Material Code: UPC005
Material ID: UPHOLS.CHAIR,F30,PU FRAME,PU FOAM,OLEFIN,TEST 30 (82-2604)
Configuration: CENTER
Ignition Source: GAS BURNER,50KW,200SEC

Initial Mass: 25.200 kg Final Mass: 7.800 kg
Ignition Time: 0.0 s

| | Units | Average |
|---|---|---|
| Heat of Combustion | kJ/kg | 20900.0 |
| CO Yield | kg/kg | 0.0000 |
| CO2 Yield | kg/kg | 0.0000 |
| HC Yield | kg/kg | 0.0000 |
| HCl Yield | kg/kg | 0.0000 |
| HCN Yield | kg/kg | 0.0000 |
| H2O Yield | kg/kg | 0.0000 |
| SOOT Yield | kg/kg | 0.0000 |
| Extinction Area | m2/kg | 0.000 |

Time Dependent Data

| Time (s) | Heat Release (kW) | Mass Loss (kg/s) | CO Yield (kg/kg) | CO2 Yield (kg/kg) | SMOKE Yield (kg/kg) | Yield (kg/kg) |
|---|---|---|---|---|---|---|
| 35.0 | 0.00 | 0.000000 | 0.000 | 0.000 | 0.000 | 0.000 |
| 90.0 | 141.00 | 0.006700 | 0.026 | 1.100 | 0.006 | 0.000 |
| 140.0 | 975.00 | 0.046600 | 0.013 | 1.578 | 0.017 | 0.000 |
| 165.0 | 672.00 | 0.032100 | 0.017 | 1.707 | 0.021 | 0.000 |
| 215.0 | 770.00 | 0.036800 | 0.012 | 1.536 | 0.025 | 0.000 |
| 235.0 | 1063.00 | 0.050800 | 0.015 | 1.263 | 0.018 | 0.000 |
| 310.0 | 398.00 | 0.019000 | 0.023 | 1.660 | 0.032 | 0.000 |
| 400.0 | 142.00 | 0.006700 | 0.018 | 1.350 | 0.016 | 0.000 |
| 800.0 | 161.00 | 0.007700 | 0.000 | 1.010 | 0.007 | 0.000 |
| 1800.0 | 18.00 | 0.000800 | 0.000 | 0.497 | 0.002 | 0.000 |

# SECTION 4 - TOXICITY DATA

Toxicity Data

National Bureau of Standards Protocol

Material Code: FPU008
Material ID: FLEXIBLE POLYURETHANE FOAM,GM-21

Form:FOAM

Auto-Ignition Temperature: 370 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 40.000 | 26.600 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 12.900 | 0.000 |
| 20.0 | 8.500 | 8.500 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: ABS001
Material ID: ACRYLONITRILE BUTADIENE STYRENE

Form: PELLETS

Auto-Ignition Temperature: 575 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 19.300 | 30.900 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 6.300 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: ABS002
Material ID: ACRYLONITRILE BUTADIENE STYRENE PIPE,ASTM D-2661

Form:PIPE

Auto-Ignition Temperature: 0 C
Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol
Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 5.600 | 5.600 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PSF001
Material ID: POLYSTYRENE EXTRUDED FOAM,GM-51

Form:FOAM

Auto-Ignition Temperature: 490 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 38.900 | 40.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PSF002
Material ID: POLYSTYRENE EXPANDED FOAM,GM-47

Form:FOAM

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 5.800 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: VWC001
Material ID: VINYL WALL COVERING

Form:SHEET

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 8.400 | 8.500 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: VCW001
Material ID: VINYL COATED WIRE

Form:WIRE

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 9.900 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: NYC001
Material ID: NYLON CARPET,JUTE BACKING,16-18 OZ/YD2

Form:CARPET

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0. | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 14.100 | 14.100 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PVC001
Material ID: POLYVINYL CHLORIDE

Form:PELLETS

Auto-Ignition Temperature: 600 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 17.300 | 20.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 7.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: RPU001
Material ID: RIGID POLYURETHANE FOAM,GM-29/GM-30

Form:FOAM

Auto-Ignition Temperature: 550 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 13.300 | 39.600 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 10.400 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PVCW001
Material ID: POLYVINYL COATED WIRE

Form: WIRE

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 14.900 | 9.900 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: WOL001
Material ID: WOOL,UNBLEACHED,UNWOVEN

Form:FIBERS

Auto-Ignition Temperature: 650 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 28.200 | 25.100 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 3.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: MOD001
Material ID: MODACRYLIC,KNIT,FABRIC

Form:FABRIC

Auto-Ignition Temperature: 725 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 4.400 | 5.300 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 4.900 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: DFR004
Material ID: DOUGLAS FIR,1IN.THICK

Form:BOARD

Auto-Ignition Temperature: 465 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 39.800 | 22.800 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 63.800 | 0.000 |
| 20.0 | 31.300 | 31.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: RDO003
Material ID: RED OAK FLOORING

Form:BOARD

Auto-Ignition Temperature: 480 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 56.800 | 30.300 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PTF001
Material ID: POLYTETRAFLUORETHYLENE

Form:RESIN

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 0.045 | 0.045 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 0.640 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PTF002
Material ID: POLYTETRAFLUORETHYLENE COATED WIRE

Form:WIRE

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 3.000 | 3.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: GBD003
Material ID: GYPSUM WALLBOARD,1/2IN.THICK

Form:BOARD

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 126.000 | 126.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: FPU001
Material ID: FLEXIBLE POLYURETHANE FOAM,GM-21, (NBS),(ALARIE),(ADL)

Form:FOAM

Auto-Ignition Temperature: 370 C
Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 40.000 | 26.600 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol
Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 12.900 | 0.000 |
| 20.0 | 8.500 | 8.500 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: FPU002
Material ID: FLEXIBLE POLYURETHANE FOAM A,FR,NBSIR83-2791 MAT'L 11

Form:FOAM

Auto-Ignition Temperature: 400 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 40.000 | 17.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: FPU003
Material ID: FLEXIBLE POLYURETHANE FOAM A,NBSIR83-2791 MAT'L 12

Form:FOAM

Auto-Ignition Temperature: 400 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 40.000 | 38.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: FPU004
Material ID: FLEXIBLE POLYURETHANE FOAM B,NBSIR83-2791 MAT'L 13

Form:FOAM

Auto-Ignition Temperature: 400 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 40.000 | 37.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: FPU005
Material ID: FLEXIBLE POLYURETHANE FOAM B,FR,NBSIR83-2791 MAT'L 14

Form:FOAM

Auto-Ignition Temperature: 375 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 40.000 | 28.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: FPU006
Material ID: FLEXIBLE POLYURETHANE FOAM,FR,GM-23,(ALARIE)

Form:FOAM

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 10.400 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PLE001
Material ID: POLYESTER BATTING,FIBERFILL,NBSIR83-2791 MAT'L 15

Form:FOAM

Auto-Ignition Temperature: 525 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 31.000 | 28.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PLE002
Material ID: POLYESTER UPHOLSTERY FABRIC,NBSIR83-2791 APPENDIX

Form:FABRIC

Auto-Ignition Temperature: 400 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 30 | 37.500 | 39.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PLE003
Material ID: POLYESTER RESIN,ACRYLIC MODIFIED,UNSATD,PEI,(ALARIE)

Form:SHEET

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 34.800 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PLE004
Material ID: POLYESTER RESIN,STYRENE/HALOGEN MODIFIED,HPE (ALARIE)

Form:SHEET

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 14.400 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PWC001
Material ID: PAPER WALL COVERING,(ADL)

Form:SHEET

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 6.600 | 6.600 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PVCC001
Material ID: PVC RIGID CONDUIT,SCHEDULE 40,(ADL)

Form:CONDUIT

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 5.900 | 5.900 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: CTN001
Material ID: COTTON FABRIC,FR (ADL)

Form: FABRIC

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 13.500 | 13.500 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: CGT001
Material ID: CEILING TILE,MINERAL-BASE (ADL)

Form: BOARD

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 29.500 | 29.500 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: CGT002
Material ID: CEILING TILE,WOOD FIBER (ADL)

Form: BOARD

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 11.300 | 11.300 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: RPU002
Material ID: RIGID POLYURETHANE FOAN,FR,GM-31 (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C
Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol
Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 8.200 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: RPU003
Material ID: RIGID POLYURETHANE FOAM,FLUOROCARBON,GM-35 (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 7.500 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: RPI001
Material ID: RIGID POLYISOCYANURATE FOAM,GM-41 (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 6.400 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PSF003
Material ID: POLYSTYRENE EXPANDED FOAM,FR,GM-49 (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | .14days-post (g) |
|---|---|---|
| 20.0 | 10.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PFF001
Material ID: PHENOL FORMALDEHYDE FOAM,GM-57 (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 6.300 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: UFF001
Material ID: UREA FORMALDEHYDE FOAM (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 2.500 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: CFI001
Material ID: CELLULOSE FIBER INSULATION,BLOWING TYPE (ALARIE)

Form: FIBER

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 11.900 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: GFI002
Material ID: GLASS FIBER INSULATION BATT,PAPER-FACED (ALARIE)

Form: BLANKET

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 35.700 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: CGT001
Material ID: CEILING TILE,MINERAL-BASE (ADL)

Form: BOARD

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 29.500 | 29.500 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: CGT002
Material ID: CEILING TILE,WOOD FIBER (ADL)

Form: BOARD

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 11.300 | 11.300 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: RPU002
Material ID: RIGID POLYURETHANE FOAM,FR,GM-31 (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C
Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol
Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 8.200 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: RPU003
Material ID: RIGID POLYURETHANE FOAM,FLUOROCARBON,GM-35 (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 7.500 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: RPI001
Material ID: RIGID POLYISOCYANURATE FOAM,GM-41 (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C
Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol
Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 6.400 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PSF003
Material ID: POLYSTYRENE EXPANDED FOAM,FR,GM-49 (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C
Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol
Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 10.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: PFF001
Material ID: PHENOL FORMALDEHYDE FOAM,GM-57 (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 6.300 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: UFF001
Material ID: UREA FORMALDEHYDE FOAM (ALARIE)

Form: FOAM

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 2.500 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

Toxicity Data

National Bureau of Standards Protocol

Material Code: CFI001
Material ID: CELLULOSE FIBER INSULATION,BLOWING TYPE (ALARIE)

Form: FIBER

Auto-Ignition Temperature: 0 C

Material at LC50

| Time (m) | Flaming (mg/l) | Non-Flaming (mg/l) |
|---|---|---|
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |
| 0 | 0.000 | 0.000 |

University of Pittsburgh Protocol

Material Loading at LC50

| Heating Rate (C/min) | 10min-post (g) | 14days-post (g) |
|---|---|---|
| 20.0 | 11.900 | 0.000 |
| 0.0 | 0.000 | 0.000 |
| 0.0 | 0.000 | 0.000 |

NBS-114A (REV. 2-8C)

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4. TITLE AND SUBTITLE

HAZARD I -
Volume 3: Data Base Listing

5. AUTHOR(S)

R.W. Bukowski and E. Braun

6. PERFORMING ORGANIZATION (If joint or other than NBS, see instructions)

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**U.S. DEPARTMENT OF COMMERCE**
**GAITHERSBURG, MD 20899**

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10. SUPPLEMENTARY NOTES

☐ Document describes a computer program; SF-185, FIPS Software Summary, is attached.

11. ABSTRACT (A 200-word or less factual summary of most significant information. If document includes a significant bibliography or literature survey, mention it here)

This report describes the first version of a method for predicting the hazards to the occupants of a building involved in a fire. To implement this method, a software package called HAZARD I is provided. It includes a scenario development utility (PRODUCT.ONE); an interactive program for inputting data to the fire model (FINPUT); a data base program (FIREDATA) with files of thermophysical, thermochemical, and reference toxicity data; the FAST model for multi-compartment energy and mass transport; a graphics utility for plotting data (FASTPLOT); a detector/sprinkler activation model (DETACT); an evacuation model which includes human behavior (EXITT); and a tenability model (TENAB) which evaluates the impact of the predicted exposure of the occupants in terms of incapacitation or lethality from temperature or toxicity, or incapacitation by burns. All of the software operates on a personal computer. Volume 2 contains complete documentation of a set of worked example cases and Volume 3 contains a complete copy of the data in the data base.

12. KEY WORDS (Six to twelve entries; alphabetical order; capitalize only proper names; and separate key words by semicolons)

computer models; evacuation; fire models; hazard assessment; human behavior; toxicity

13. AVAILABILITY

☒ Unlimited
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